

REMARKS/ARGUMENTS

Prior to the entry of this amendment, claims 1-23 were pending. Claims 1, 2, 8-10, and 14-16 have been amended. No claims have been canceled or added. Accordingly, claims 1-23 remain pending in this application.

Claims 1-3, 6-11, 14-17, and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,400,372 to Gossweiler, III et al. (hereinafter "Gossweiler"). Claims 4, 12, and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gossweiler in view of US Patent No. 6,559,845 to Harvill et al. (hereinafter "Harvill"). Claims 5, 13, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gossweiler in view of US Patent No. 6,353,437 to Gagne (hereinafter "Gagne"). Applicant respectfully requests reconsideration for at least the reasons presented below.

I. EXAMINER INTERVIEW

Applicants thank Examiner Yang and Supervisory Examiner Zimmerman for conducting an interview concerning this application with Applicant's representatives on March 6, 2007. The content of the interview is summarized below. See 37 C.F.R. 1.133 and MPEP 713.04.

A. General Results or Outcome of the Interview

Supervisory Examiner Zimmerman indicated that claim 1 may be allowable over Gossweiler if the claim were amended to more clearly recite that the database from which the first representation of the object is queried is external to the computer system rendering the object.

B. Identification of Claims Discussed

Claim 1 as presented in the amendment of September 4, 2006.

C. Identification of Prior Art Discussed

Gossweiler, III et al. (US Patent No. 6,400,372).

D. Summary of Main Arguments

Applicant's representatives explained that Gossweiler fails to teach or suggest the limitations of claim 1, including "querying a database for a first representation of [an] object" and "wherein the first representation of the object is not loaded into computer memory when the selection is of the second rendering option."

Gossweiler is directed to determining, in real-time, the level-of-detail (LOD) of objects in a scene to maintain a consistent frame rate: "in order to provide a smooth frame rate and interactivity, levels of detail for the various objects are chosen such that all objects can be drawn in the predetermined maximum amount of time determined by the desired frame rate." Col 8, line 65 - col. 9, line 2. Thus, the LOD model that is rendered for a particular object may dynamically change on a frame-by-frame basis.

Given the importance that Gossweiler places on frame rate and the real-time nature of his method, Gossweiler teaches away from the concept of querying a database to retrieve different LOD models for an object as needed. It is well-known in the art that database queries are many orders of magnitude slower than access to Dynamic RAM. Database queries may also be significantly slower than access to flat files in a secondary storage system, depending on the complexity of the query. As such, Applicant's representatives explained that one of ordinary skill in the art would not use database queries to retrieve LOD models in the real-time rendering method of Gossweiler.

Under a similar line of reasoning, Applicant's representatives explained that Gossweiler teaches away from storing only a single representation of an object (*e.g.*, a single LOD model) in working memory at a time. Since the purpose of the Gossweiler invention is to maintain a smooth frame rate, all of the LOD models for an object must be stored in working memory simultaneously. One of ordinary skill in the art would appreciate that loading a new LOD model into memory every time it is needed would have an even greater impact on frame rate than simply rendering all objects at high detail, effectively making the Gossweiler algorithm useless.

Examiner Zimmerman expressed concern that the "database" recited in claim 1 may be stored within the working memory of the computer rendering the scene. Examiner Zimmerman suggested amending the claim to clarify that the database is external to the rendering computer.

II. THE CLAIMS

A. Claim 1

While the Applicant regards claim 1 to be patentable over Gossweiler, Applicant has amended claim 1 as suggested by Examiner Zimmerman to clarify the differences between the present invention and Gossweiler, and to expedite prosecution of the present case. Amended claim 1 recites:

A method for rendering a frame of animation in a computer system having a computer memory, the method comprising:
retrieving scene descriptor data associated with the frame of animation, wherein the scene descriptor data includes a first specification of at least one object, wherein the first specification of the object is associated with a first rendering option;
receiving a selection of the first rendering option or a second rendering option;
querying a database external to the computer system for a first representation of the one object in response to the first specification of the object when the selection is of the first rendering option;
receiving the first representation of the object from the database external to the computer system when the selection is of the first rendering option;
loading the first representation of the object into the computer memory when the selection is of the first rendering option; and
rendering the object for the frame of animation using the first representation of the object when the selection is of the first rendering option;
wherein the first representation of the object is not loaded into the computer memory when the selection is of the second rendering option. Applicant's amended claim 1, emphasis added.

Accordingly, claim 1 is asserted to be allowable over Gossweiler and the rejection should be withdrawn.

B. Claims 8 and 14

While the Applicant regards claims 8 and 14 to be patentable over Gossweiler, Applicant has amended claim 8 and 14 as suggested by Examiner Zimmerman to clarify the differences between the present invention and Gossweiler, and to expedite prosecution of the

present case. Amended claims 8 and 14 recite limitations that are substantially similar to amended claim 1. As such, claims 8 and 14 are asserted to be allowable over Gossweiler for substantially the same reasons as claim 1, as well as for the additional limitations they recite.

C. Remaining Claims

Claims 2-7 and 21-23, which depend (either directly or indirectly) from claim 1, are asserted to be allowable for substantially the same reasons as claim 1, as well as for the additional limitations they recite.

Claims 9-13, which depend (either directly or indirectly) from claim 8, are asserted to be allowable for substantially the same reasons as claim 8, as well as for the additional limitations they recite.

Claims 15-20, which depend (either directly or indirectly) from claim 14, are asserted to be allowable for substantially the same reasons as claim 14, as well as for the additional limitations they recite.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

/Stephen Y. Pang/

Stephen Y. Pang
Reg. No. 38,575

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400 Fax: 415-576-0300
SYP:djb
61000929 v1